From: "Hufschmid, Joy" <Jhufsch@co.santa-barbara.ca.us>
To: centralcoast@waterboards.ca.gov
Date: 5/26/2009 5:01:26 PM
Subject: Integrated Report

Mary,
A paper copy will follow tomorrow.

Mary Adams
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401
(805) 542-4768

SUBJECT: Integrated Report

Dear Ms. Adams,

The County of Santa Barbara (County) appreciates the Central Coast Regional Water Quality Control Board's (Regional Board) efforts to develop the very extensive Public Review Draft of the Clean Water Act Sections 305(b) and 303(d) Integrated Report for the Central Coast Region 2009 (Integrated Report). We also appreciate the opportunity to provide written comments on the Integrated Report. However, although this year's draft 303(d) list is more carefully developed and transparent than ever before, we respectfully request that several of the draft listings be removed based on the following comments. We submit these comments with the emphasis and reminder that given the current state of the economy, with the difficult situation of having extremely limited State, County, and local resources to address water quality issues, now more than ever we must be careful and reasonable with our identification of problems, prioritized with our solutions, and efficient with our use of funds. Please bear this guidance in mind as you complete your review and adoption of the draft 303(d) listings.

GENERAL COMMENTS

A. 303(d) Tiering

The City is fully in support of the Board's Vision of Healthy Watersheds (Vision) and the use of the Vision to structure work towards the "highest water quality priorities," as described in the Brief Issue Descriptions for the 2009 Triennial Review. However, in reviewing the Integrated Report, the City finds that the approach for the 2008 Proposed Listings does not sufficiently prioritize listings, resulting in potential lost opportunities for improving the most serious impairments.

The automated database scanning and listing approach used to develop the 2008 Proposed Listings certainly represents an improvement in terms of efficiency and accuracy, resulting in over 600 proposed new listings, which is an unprecedented increase for the Central Coast. However, these new listings have not been "ground-truthed," i.e. checked against ongoing research, water

quality projects, trends, seasonality issues, Federal/State/regional water quality standard-development issues (such as for bacteria), SWMPs, and anecdotal evidence on the water bodies. In addition, the new listings have not been ranked or categorized, other than to describe all ongoing TMDLs as high priority, two listings as medium priority, and the remaining hundreds of listings as low priority with the EPA-mandated generic TMDL deadline of 2021. Particularly given the current economic situation, when State, County, and municipalities' resources are more limited than ever before, the Board should revise the draft Listings to provide a more tiered set so that available resources can be focused on the known, real, highest priority water quality issues through the future TMDL process.

Municipalities, researchers, granting agencies, and non-profit organizations often base allocation of water quality resources on the 303(d) list. Local media also focus attention on these perceived water quality threats. Given these facts, the very real downside of "over listing" is that without careful human prioritization, opportunities are lost for focusing limited resources on the most serious threats and avoiding false public concerns.

Furthermore, the effort required to de-list and/or change a beneficial use designation is stringent, time consuming, and costly. Therefore, the City requests that the Board review the computer-generated proposed listings and create a rubric for identifying the most supported and serious water quality issues, consistent with broader Basin Plan changes being considered for the Triennial Review and Vision, and include only the top tiered new listings in the final 2008 303(d) List. Specifically the Board should develop a schedule that is based on a waterbody/impairment "prioritization matrix" that is consistent with State 303(d) listing policy and considers the TMDL schedule factors that are included on page 16 of the 2004 SWRCB Listing/Delisting Policy (Policy) (see attached). We would be happy to work with Regional Board staff to develop such a tool.

B. All Bacteria listings for inland waters.
Section 3.3 of the 2004 SWRCB's 303d Listing Policy provides unclear guidance regarding the listing of inland waters for indicator bacteria-based recreational use impairments. This language is as follows:

"For bacterial measurements from inland waters, if water quality monitoring data were collected April 1 through October 31 only, a four percent exceedance percentage shall be used if (1) bacterial measurements are indicative of human fecal matter, and (2) there is substantial human contact in the water body."

Based on this guidance, it is unclear whether indicator bacteria monitoring data collected outside of April 1 through October 31 (i.e., outside of the AB411-required monitoring period) can or should be used at all. Please clarify the Board's interpretation of this fragment of the policy. But regardless and ignoring this unclear fragment, the guidance states that the exceedance percentage threshold should only be applied as the basis for a list if both criteria (1) and (2) can be demonstrated. While criterion (2) is clearly debatable for many of these South Coast lagoons, marshes, and ephemeral drainages, we question the many proposed inland water bacteria listings on the basis of criterion (1). A wide body of research over recent years has unquestionably demonstrated the complete lack of correlation between indicator bacteria and fecal matter (as well as with pathogens and human

illness in general) in stormwater receiving waters (as opposed to undisinfected municipal wastewater receiving waters) (Paulsen and List, 2005[1], Schroeder et al. 2002[2], Colford et al. 2005[3]). Therefore, to be consistent with State policy for listing inland waters for bacteria, we request that the Board remove all such listings from the 2008 draft 303d list.

WATERBODY-SPECIFIC COMMENTS

A. Santa Maria River Estuary and Santa Maria River for E. coli

The dataset used for listing the Santa Maria River Estuary for E. coli is the same as that used to list E. coli in the Santa Maria River (sampling location 312SMA). Therefore, sampling results from one location were used to list two different waterbodies. The listing of two waterbodies based on the same sampling location is redundant and one waterbody (either Santa Maria River Estuary or Santa Maria River) should be removed from the proposed 303(d) list for E. coli upon this basis.

B. Santa Ynez River (below City of Lompoc to Ocean), Rincon Creek, San Antonio River (below San Antonio Reservoir) and San Antonio Creek (Rancho de las Flores Bridge at Hwy 135 to Railroad Bridge) for E. coli.

The County requests that these listings be removed because of concerns with the objective used to determine exeedances for E. coli in freshwater. The USEPA criteria for E. coli in designated freshwater beaches (235 MPN/100 ml) was used for all creek reaches. The County feels it would be more appropriate to use the criteria for infrequently used areas (576 MPN/100 ml) for this creek, as all of the reaches are used infrequently for contact recreation (see attached pages from the bacteria Final Rule). This infrequent use designation is inherently appropriate for these and other South Coast drainages due to their ephemeral nature; i.e., their hydrology is characterized by long dry periods with minimal to no flow, and flashy (unsafe) high flow periods (due to the steep, narrow canyon watersheds) during intense storms. Therefore recreational body contact opportunities are severely limited. The State Water Board recently approved an amendment to the San Diego Basin Plan that uses the USEPA criteria for E. coli that vary depending on degree of beach use (see attached Amendment). Using the more appropriate criteria, these rivers/creeks would not meet the exceedances required to list. Board staff may suggest that the listing move forward, and the process for removing the beneficial use take place afterward. However, as Board staff are well aware, the beneficial use removal/modification process is extensive and must include an anti-degradation analysis. The County does not wish to spend resources on requesting a beneficial use removal if it is not necessary.

C. Santa Maria River Estuary, Santa Ynez River (below City of Lompoc to Ocean), Rincon Creek, San Antonio River (below San Antonio Reservoir), and San Antonio Creek (Rancho de las Flores Bridge at Hwy 135 to Railroad Bridge) for Fecal Coliform.

The County requests that these listings be removed for the following reasons:
1) The listings are redundant with those for E. coli and will lead to allocation of very limited resources that is not in line with water quality priorities or current science. Currently, almost every monitoring group tests for E. coli and uses the results interchangeably or with a conversion factor

for fecal coliform. The difference in the two measures in their potential sources and impacts is not sufficient to justify both listings. E. coli is a subset of the fecal coliform organism group, and EPA freshwater recreational bacteria standards are for E. coli.

2) The Board uses the fecal coliform standard of "not exceeding 400/100 ml in more than 10% of the samples in a 30-day period" in effect as a single sample maximum, and typically samples once per month. The County is not clear that this approach reflects the original intention of the objective or if it meets the statistical assumptions of the objective. The County requests that the Board supports their conclusion that the original objective for protecting human health is based on a single sample collected monthly.

3) Epidemiology studies do not support the use of fecal coliform (Paulsen and List, 2005, Schroeder et al. 2002, Colford et al. 2005).

4) The Santa Maria River Estuary was listed based on data collected at the CCAMP monitoring site located less than 300 meters upstream of the estuary. Depending on the exact location of the CCAMP monitoring site, samples may not be representative of the water quality conditions within the estuary based on the assertion in the Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (SWRCB, 2004) that samples collected 200 meters apart are considered spatially independent.

D. Hammonds Beach and Hope Ranch Beach for Total Coliform.

The County requests that this listing be removed because it is improperly based on the SHELL beneficial use. The County has no knowledge of any shellfish harvesting that currently occurs or is planned to occur in the waters off Hammonds Beach. Therefore, since this proposed listing is based solely (i.e., the lines of evidence for REC-1 and REC-2 beneficial use do not support listing) on an inappropriate beneficial use, it should be removed. Board staff may suggest that the listing move forward, and the process for removing the beneficial use take place afterward. However, as Board staff are well aware, the beneficial use removal/modification process is extensive and must include an anti-degradation analysis. The County does not wish to spend resources on requesting a beneficial use removal if it is not necessary.

E. Haskells Beach and Refugio Beach for Enterococcus.

This listing is based on the line of evidence for exeedances of the geomean criterion. The line of evidence for exeedances of the single sample maximum criterion does not support listing. The Board converted values of "<10/100 ml" (i.e., below detection) to 10/100 ml prior to calculating geomeans. This approach is incorrect, particularly when a large portion of the values are below the detection limit, and can lead to a substantial overestimate of the number of exeedances. The most rigorous approach is to use Maximum Likelihood Estimation methods promoted in Helsel (2005[4]) and other references. Other approaches are arbitrary, but the County conducted a quick test replacing the values with "1," and "5" both of which lead to a lack of support for the listing.

F. Dos Pueblos Creek, Tecolote Creek, Salsipuedes Creek, Rincon Creek, San Antonio Creek (Rancho de las Flores Bridge at Hwy 135 to Railroad Bridge) for Sodium and, if applicable, Chloride.

The County requests that the Board remove the proposed listings for the

following reasons:

1) The listings are based on an agricultural supply beneficial use that is inappropriate and not representative of actual uses of these largely ephemeral surface water bodies. The County is not aware of any current or future agricultural uses of surface waters (e.g., for irrigation via diversion) in these watersheds.

2) Furthermore, sodium and chloride are naturally-occurring salts that are historically present in moderate to high concentrations in surface water samples throughout the South Coast (likely due to the local geology, i.e., marine formations and presence of highly mineralized springs which contribute to base flow) (Miller & Rapp, 1968[5]). Therefore, it is unlikely that high sodium and chloride concentrations are due solely to recent anthropogenic impacts to the watersheds. On this basis, there is no need for a listing and subsequent TMDL to address this "problem."

3) The listing for sodium and chloride is not a high priority for the Board. Board staff may suggest that the listing move forward, and the process for removing the beneficial use take place afterward. However, as Board staff are well aware, the beneficial use removal/modification process is extensive and must include an anti-degradation analysis. The County does not wish to spend resources on requesting a beneficial use removal if it is not necessary.

G. Bell Creek for Unknown Toxicity

This listing is based on plant toxicity (selenastrum algae) threshold exceedances in 3 out of 4 results, 2 of which are from the same sample date and therefore should be averaged and treated as one result consistent with p 24, section 6.1.5.6 of the State Board's Listing Policy. Furthermore, two results were qualified as "Retest" and "Test run without EDTA" and therefore should be reconsidered for usage here due to data quality issues. The result of these considerations should be the removal of this listing.

H. San Antonio Creek (Rancho de las Flores Bridge at Hwy 135 to Railroad Bridge) for Chlorpyrifos

There are no water quality data provided through the fact sheets (SWAMP data is referenced) on the Board's 303(d) website for this listing. Furthermore, the water quality threshold used for this listing is not a Federal or State water quality standard or criterion, nor is it a water quality objective included in the Basin Plan. The basis for this listing is therefore unfounded.

The County appreciates the opportunity to comment on the Integrated Report and looks forward to the Board's responses. Please do not hesitate to contact me if you need any clarification or additional information.

Sincerely,

Joy Hufschmid
Project Clean Water Manager
Santa Barbara County Public Works Department
(805) 568-3373

[1] List, E.J. and S. Paulsen, 2005. Review of Bacteria Data from Southern California Watersheds. Prepared for The Irvine Company by Flow Science Incorporated.

[2] Schroeder, E.D. et al. 2002. Management of Pathogens Associated with Storm Drain Discharge–Results of Investigations of the Presence of Human Pathogens in Urban Storm Drains. Prepared for the California Department of Transportation, Division of Environmental Analysis, May 2002.

[3] Colford, J.M. et al. 2005. Recreational Water Contact and Illness in Mission Bay, California. Technical Report 449. Southern California Coastal Water Research Project. Westminster, California.

[4] Helsel, D.R., 2005. Nondetects And Data Analysis: Statistics for censored environmental data. John Wily and Sons, New York. 250 p.

[5] Miller, G.A. and J.R. Rapp, 1968. Reconnaissance of the Ground-Water Resources of the Ellwood-Gaviota Area, Santa Barbara County, California.

CC: madams@waterboards.ca.gov